

REMARKS

Claims 1 to 66 are pending. Claims 32 to 66 have been withdrawn from consideration. Claims 1 and 52 are currently amended. Reconsideration of the application is requested.

§ 103 Rejections

Claims 1-15, 17-24, 27-31 stand rejected under 35 USC § 103(a) as purportedly being unpatentable over Verhoog (U.S. Pat. No. 6,296,968) in view of Brinkman et al. (U.S. Pat. No. 4,007,315). With respect to claims 1 and 14, the Examiner's position is that Verhoog teaches each of the electrochemical cells comprising opposing first and second planar surfaces and being subject to volumetric changes during charge cycling with a unitary cooling tank which is external to the electrochemical cells, formed of a polypropylene plastic material and having an inlet fluid orifice and an outlet fluid orifice, the cooling bladder having a substantially flat shape and circulates liquid between the inlet and outlet. However, the Examiner admits that the Verhoog reference does not disclose a deformable bladder. The Examiner has characterized Brinkman et al. as disclosing a cooling bladder made of plastic preferably polyethylene because of its relatively good heat conductivity accompanied by high specific conductivity. According to the Examiner, it would have been obvious to one of ordinary skill at the time the invention was made to incorporate a deformable (because it is a bladder) polyethylene plastic.

Applicant's claim 1 has been amended to recite a plurality of electrochemical cells, each having an active area (see page 19, lines 8-10 of specification for support), and a deformable cooling bladder formed of a conformable thermally conducting material and having an inlet port and an outlet port, the cooling bladder conformable and deformable with the limitation that there is contact between the surface of each of the cells adjacent the cells' active areas and the cooling bladder. Support for this amendment can be found, for example, on page 9, lines 10-26 of the instant specification. In contrast, Verhoog describes a tank divided into cells (not electrochemical cells) by walls, each cell receiving an electrode assembly (col. 2, lines 47-48 and Figures 1 and 4). The walls between the cells comprise two facing flanges forming a compartment in which a heat exchange fluid flows (col. 4, lines 61-64). The Examiner has not shown that Verhoog teaches or suggests a deformable bladder with a limitation that there is

contact between the surface of each of the cells adjacent the cells' active areas during volumetric changes. The tank of Verhoog is fixed in dimension by the walls formed by flanges and the tank only contacts the wall of the cell (not an electrochemical cell) that contains the electrolyte and not the area adjacent to the electrochemical cells' active areas. As seen by Figure 1 of the instant specification, the Applicants' cooling bladder 30 is in direct contact with the each of the electrochemical cells 15 (cells' active area) and the cell stack 28. Thus, the Examiner has not shown that Verhoog discloses all of the limitations of Applicant's amended claim 1. The Examiner admits that Brinkman et al. discloses a cooling bladder made of plastic preferably polyethylene because of its relatively good heat conductivity accompanied by high specific conductivity. But the Examiner has not shown that the deformable bladder of Brinkman et al. can be used to contact the electrochemical cells' active areas. Since the Examiner has not shown that Verhoog teaches all of the limitations of applicants' amended claim 1, and Brinkman et al. does not add the remaining limitations of applicant's claim 1, the rejection of amended claim 1 should be withdrawn. Additionally, since claim 14 depends from amended claim 1 and adds the limitation that the conformable thermally conductive material comprises a single layer, the rejection of claim 14 should likewise be withdrawn.

Claims 2-13, 15, 17-24, and 27-31 all add additional features to claim 1. Since claim 1 is patentable for the reasons given above, claims 2-13, 15, 17-24 and 27-31 are likewise patentable. Applicant respectfully requests that with the amendment of claim 1, the rejections of applicants' claims 1-15, 17-24 and 27-31 under 35 USC § 103(a) as purportedly being unpatentable over Verhoog (U.S. Pat. No. 6,296,968) in view of Brinkman et al. (U.S. Pat. No. 4,007,315) have been overcome and the rejections should be withdrawn.

Claim 16 is rejected under 35 U.S.C. 103(a) as purportedly being unpatentable over Verhoog in view of Brinkman et al. as applied to claims 1-13, 19-24, and 27-31 and in further view of Fitts et al. (U.S. 2002/015333). Claim 16 depends from and adds additional features to amended claim 1. The Examiner suggests that Fitts et al. teach a material made of layers of metallic, non-metallic, or metallic with non-metallic materials that have a high thermal conductivity. Claim 1 is patentable for the reasons given above. Thus, claim 16 is likewise patentable. Applicant respectfully suggests that with the amendment of claim 1, the rejection of applicants' claim 16 as being unpatentable over Verhoog in view of Brinkman et al. and in

further view of Fitts et al. (U.S. 2002/015333) has been overcome and the rejection should be withdrawn.

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as purportedly being unpatentable over Verhoog in view of Brinkman et al. as applied to claims 1-13, 19-24, and 27-31 and in further view of Gyoten et al (U.S. 2001/0036567). The Gyoten et al. reference teaches water or aqueous ethylene glycol as a coolant. Claims 25 and 26 depend from and add additional features to amended claim 1. Since amended claim 1 is patentable as discussed above, claims 25 and 26 should be patentable. Applicant respectfully requests that with the amendment of claim 1, the rejection of applicants' claim 16 as being unpatentable over Verhoog in view of Brinkman et al and in further view of Gyoten et al. (U.S. 2001/0036567) has been overcome and the rejection should be withdrawn.

Rejoinder

The Examiner is requested to enter the proposed amendment to withdrawn claim 52. The proposed amendment makes claim 52 dependent upon amended claim 1. Claims 52 through 66 are process claims that, with the proposed amendment, are now dependent upon amended claim 1. Since amended claim 1 is allowable, Applicant respectfully requests that the Examiner withdraw the restriction requirement for claims 52-66 and rejoin them. They are process claims that depend upon a now allowable product claim (MPEP 821.04(b)). Claims 53-66 depend upon amended claim 52 and have all of the limitations of amended claim 52. Therefore, since amended claim 52 is now allowable and rejoined, then claims 53-66 should likewise be allowed and rejoined.

In view of the above, it is submitted that the application is in condition for allowance.

Examination and reconsideration of the application as amended is requested.

Respectfully submitted,

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